

Summary of Comments Received on *Options for Preparing for Sea Level Rise*

Including responses and potential amendments

April 22, 2013

This document summarizes all comments received on the 61 Options for Preparing Delaware for Sea Level Rise as a result of the February 2013 Public Engagement Sessions and public comment period. Approximately 56 comments were received at the Public Engagement meetings, via email, on online survey and US Mail.

Overarching Comments

Organization and prioritization of options

The Natural Resources Defense Council's comment, "for the sake of clarity and to facilitate implementation," succinctly captures the multiple comments received advising DCP to reorganize and/or prioritize the options that are to be included in the final adaptation plan. As we work towards completing the adaptation plan document, the DCP is considering presenting the Options in two ways, one as presented at the public sessions and one by vulnerable resource. DCP can also categorize each option as an action that would occur in the short term, medium term, or long term, creating a sort of action plan by resource.

Climate change

There were many points made about how emission rate and global climate change are influencing SLR and storm surge. DCP understands how climate change and SLR are strongly interconnected, but as directed by Secretary O'Mara, it is beyond the scope of work requested from the Sea Level Rise Advisory Committee. A more in-depth description of climate change, and Delaware's vulnerabilities associated with climate change, is currently being worked on by the Division of Energy and Climate. To acknowledge the interconnectedness of climate change and SLR, DCP will provide a brief paragraph in the final adaptation plan to discuss how climate change and SLR are interrelated and will inform the reader of the work the Division of Energy and Climate is doing to develop a document which will provide more information about climate change.

Options vs. recommendations

Comments received were concerned that referring to the adaptation action items as "Options" would reduce the strength of the document and that they should be referred to as "recommendations." The term "Options" was utilized during the public sessions to imply that consensus had not been reached yet by the Sea Level Rise Advisory Committee. As discussed during the February, 2013 SLRAC meeting. DCP is planning to draft the Adaptation Document so that Options agreed upon for inclusion in the adaptation plan are referred to as recommendations to Secretary O'Mara.

Funding

There were many comments regarding funding in response to the comment form question that asked for ideas about how adaptation projects should be paid for. Several specific ideas for new revenue sources were submitted, as well as general principles for how available funding should be spent. These ideas are presented in a separate document.

Specific Comments about each Option

Comments received about specific options are summarized and/or directly quoted in bullet form in the following sections. The general number of supportive comments and non-supportive comments are tallied; users of this document should use these only as a guideline as determining whether a comment was tallied as supportive was only done as a qualitative exercise.

Below each option, in bold, are suggestions, comments and/or next steps from DCP Staff. Options highlighted in RED are suggested for deletion and/or combination with other options. It is suggested that options highlighted in GREEN expand in scope to include components of other options. Options highlighted in ORANGE are slated for additional discussion by the Sea Level Rise Advisory Committee. Options that are not highlighted are proposed for incorporation into the Adaptation Plan as-is or with only minor changes.

IMPROVE COMMUNICATION AND COORDINATION BETWEEN STATE, FEDERAL, LOCAL AND REGIONAL PARTNERS TO STREAMLINE SEA LEVEL RISE ADAPTATION EFFORTS

1. **Conduct a comprehensive inventory of key funding, coordination, regulations and policies and analyze them for barriers and opportunities for sea level rise adaptation.** *There was support for this option. 10 commenters specifically supported it; 3 did not.*
 - Comment to specifically prioritize a review and legal analysis of the Coastal Zone Action, Beach Preservation Act and Public Accommodations Tax
 - Several specifically wanted to prioritize this work
 - **DCP Comment: Consider for short or medium term action. Update text to incorporate comment**
2. **Increase opportunities for technology transfers and regional coordination for transportation issues affected by sea level rise.** *There was support for this option. 10 commenters specifically supported it; 2 did not.*
 - Suggestion to include/highlight work that is already ongoing
 - **DCP Comment: some ongoing work will be highlighted in main text of document. Any specific suggestions for inclusion are welcomed.**
 - **DCP Comment 2: Incorporate options #3 and #9 into this option.**
3. **Develop a Federal Highways Administration climate change framework.** *There was support for this option; 8 specifically supported; 3 did not.*
 - Suggestion to also recommend use of pilot projects in this option
 - Suggestion to use this option to coordinate with others to determine what is essential to maintain roadways
 - **DCP Comment: incorporate into #2**
4. **Improve coordination of permit decisions for adaptation projects between federal, state and local officials.** *There was support for this with 15 specifically supporting; 2 not supporting*
 - May wish to include “streamlining” into this option
 - One commenter thought this should be prioritized
 - **DCP Comment: Consider for a priority action. Can incorporate the term “streamlining” into text.**

5. **Incorporate sea level rise into public and private sector regional planning efforts.** *There was support for this option; 15 in support; 2 not supporting.*
 - At least 4 commenters thought this was very important/should be prioritized
 - Comment to include the Port, USFWS Comprehensive Conservation Plans and Office of State Planning Coordination in the text
 - Comment that this is critical to evacuations
 - **DCP Comment: Consider for priority action. Can incorporate comments into text.**
6. **Create new partnerships to increase resources for research and development of adaptation options.** *There was support for this with 11 specifically supporting and 2 not supporting.*
 - Amend to include that is should also “enhance existing partnerships”
 - Include consultants as part of the partnerships to be developed
 - Perhaps this should specifically call for pilot projects, rather than partnerships?
 - One commenter thought this was very important/priority
 - **DCP Comment: Consider for priority action. Can incorporate comments into text.**
7. **Provide sea level rise information to the Delaware Agricultural Land Preservation Program for consideration.** *There was support for this option with 8 specifically supporting and 3 not in support.*
 - Question as to why this wasn’t already happening.
 - Suggestion to also include the Nutrient Management Commission
 - Comment that this might be more suited to the Technical Assistance section
 - **DCP Comment: Delete and incorporate Ag Land Preservation Program into #57, which calls for technical assistance to land managers**
8. **Provide technical assistance to Delaware’s Open Space Council for incorporating sea level rise into its criteria for acquisition of natural areas.** *There was support for this option with 10 specifically supporting and 2 not in support.*
 - This has already occurred, should it be deleted and instead included as a success story?
 - Similar comments to Ag Land Preservation Program with respect to classification
 - **DCP Comment: Delete and incorporate Ag Land Preservation Program into #57, which calls for technical assistance to land managers**
9. **Encourage the establishment of a sea level rise group within American Association of State Highway Transportation Officials.** *There was support for this option with 7 in support and 3 not in support.*
 - Commenter reported that there is already a Transportation Climate Change group in AASHTO
 - AASHTO Climate group could be narrowed to SLR
 - **DCP Comments: Incorporate Into #2, some of this work is happening already.**

PROVIDE INCREASED REGULATORY FLEXIBILITY FOR ADAPTATION AND IMPROVE CONSISTENCY BETWEEN REGULATORY AGENCY DECISIONS

10. Encourage early transportation planning and conceptual infrastructure design for sea level rise adaptation

There was support for this option with 10 specifically supporting and 1 not in support.

- Commenter thought that “encourage” is a wimpy word.
- Commenter thought this could be included with the executive order recommendation.
- One commenter thought this should be prioritized
- **DCP Comments:** *Consider for priority action. Incorporate comments to extent possible. While an executive order may also help accomplish this goal, the text of this option is specific enough to keep a stand-alone option.*

11. Allow for the connection of individual septic systems to community septic systems with excess capacity when human safety and welfare are at risk. *There was support for this option with 9 specifically supporting and 1 not in support*

- No actionable comments, but one commenter reiterated that adequate ordinances at the county and municipal level are essential and questioned how the state/locals worked with respect to state guidelines and regulations and local ordinances.
- **DCP Comments:** *Keep as written. Consider explaining relationships between state/locals in main text of document*

12. Develop local land use ordinances that encourage consideration of the effects of sea level rise in the siting and maintenance of public infrastructure. *There was support for this with 12 commenters specifically supporting and 1 not in support.*

- One commenter reiterated that adequate ordinances at the county and municipal level are essential and questioned how the state/locals worked with respect to state guidelines and regulations and local ordinances.
- One commenter pointed out that local governments would need lots of help
- One commenter asked for a more robust way of enforcing the “guidelines” that this option discusses developing
- Several commenters pointed this out as very important or should be a priority
- **DCP Comments:** *Rename option to include mention of development of set of guidelines. To the enforcement comment, state grant/loan programs can be linked to adequate ordinances at the local level, this could be addressed through mention of incentive programs depending upon how the SLRAC pursues the issue of funding adaptation.*

13. Consider sea level rise implications in future regulatory updates for septic systems and wells. *There was support for this action with 9 specifically supporting and 1 not in support. No actionable comments received.*

14. Encourage the governor to sign an executive order that would direct state agencies to plan for sea level rise. *This had support with 13 specifically supporting and 1 not supporting*

- Several commenters pointed out that this should be a priority and one of the first actions to be undertaken
- One commenter thought there should also be a Cabinet level council established
- One commenter believed that the Executive Order would be inadequate; that a high level official should be appointed to ensure implementation of SLR actions

- **DCP Comment: Consider for priority action. Consider inclusion of text for establishment of implementation committee by governor.**

15. Provide regulatory incentives that encourage sea level rise adaptation and that allow for innovative projects.

There was support for this with 12 specifically in support and 2 not in support.

- One commenter thought this should be a priority. No other actionable comments received.
- **DCP recently became aware of one example that was enacted this year: the Wetlands and Subaqueous Lands Section has recently implemented a general permit for “living shorelines” that will help reduce paperwork, red tape and permitting time for people installing “soft” shorelines, a practice that the state is encouraging in appropriate areas as a more environmentally friendly way of reducing shoreline erosion than rip-rap or bulkheads. This could be highlighted in the text of this option or in the document itself.**

16. Evaluate the state Coastal Zone Act Regulations for changes that would increase flexibility for industries to adapt their shorelines and facilities to sea level rise. This had support, with caveats, with 10 specifically supporting and 3 not supporting.

- There were several commenters who did not want to see this Act weakened and that they perceive that the Act is already too flexible in its interpretation.
- One commenter said don’t weaken, but provide technical assistance
- One commenter wanted to require climate change impacts and sea level rise to be considered in issuance of Coastal Zone Act Permits.
- One commenter said that streamlining and increasing flexibility are good objectives.
- **DCP Comments: During EO 36 Public Hearings, the Coastal Zone Act was brought up numerous times and is likely to see some review and revisions in the near future. The intent of this particular option was aimed at making sure that the regulations were not overly restrictive in allowing adaptation to occur on facilities permitted by the CZA. Comments from the public indicate some desire to do this, but also to ensure that sea level rise implications are considered in regulatory updates, as in #13. To cover both ends of the spectrum, this option could be retitled similar to #13, “Consider sea level rise implications in future regulatory updates for the Coastal Zone Act”.**
- **DCP comments #2: To the comment about technical assistance, this is covered in #58.**

17. Create a financial assurance program to minimize the state’s liability to clean up industrial sites if they are abandoned as a result of sea level rise. This had support with 12 specifically supporting and 2 not in support.

- One commenter wished to prioritize this option
- No other actionable comments received, though there were general comments reflecting concern for the Burton Island “Ash Pile” at NRG Indian River Power Plant.
- **DCP Comment: Consider for priority action**

18. Conduct a comprehensive update to the state’s regulatory tidal wetlands maps and provide a way to periodically update the maps to reflect changes occurring from sea level rise. There was support for this option with 12 specifically commenting in support and 1 not in support.

- Several commenters thought this should be prioritized
- Several comments highlighted their desire to protect wetlands and the functions and benefits they provide.
- **DCP Comment: Consider for priority action**

PROVIDE CONSISTENT AND PREDICTABLE POLICIES FOR FUTURE GROWTH, INVESTMENT AND NATURAL RESOURCE MANAGEMENT

19. **Incorporate sea level rise considerations into the Strategies for State Policies and Spending.** *There was support for this option with 12 specifically commenting in support and 3 not in support.*
 - Several commenters thought this should be prioritized.
 - No actionable comments received
 - **DCP Comment:** *Consider for priority action*
20. **Incorporate sea level rise considerations into municipal comprehensive development plans.** *There was support for this option with 14 specifically supporting and 3 not supporting*
 - Many commenters thought this was very important and/or should be a high priority (at least 5)
 - **DCP Comment:** *Consider for priority action*
21. **Incorporate sea level rise into Delaware’s Long Range Transportation Plan (LRTP).** *There was support for this option with 11 specifically in support and 3 not in support.*
 - No actionable comments received
22. **Incorporate sea level rise into the Transportation Operations Management Plan.** *There was support for this option with 8 specifically in support and 3 not in support.*
 - No actionable comment received
23. **Encourage inclusion of sea level rise in Transportation Project Design Manuals.** *There was support for this option with 7 specifically in support and 3 not in support.*
 - One commenter questioned whether AASHTO was already doing this.
24. **Develop a statewide retreat plan.** *There was support for this option with 13 specifically supporting and 4 not in support.*
 - Several commenters thought that this was very important and/or should be a priority
 - A good retreat plan – updated periodically as the climate and sea level change – might save wasted money and resources.
 - Concern that this option and the entire section is a “kiss of death”
 - **DCP Comment:** *While several thought this should be a priority action, there is not enough data and info to implement successfully yet. This would be an option that could be identified for long-term implementation (starting in 5+ years, after lots more data and info is available)*
25. **Conduct a legal review for disinvestment of publically owned infrastructure and privately owned buildings.** *Support for this option was mixed, with 7 specifically in support and 5 not in support.*
 - One commenter thought that such a legal review must also include questions of “equal protection” and “environmental justice”

- *DCP note: the mixed support for this option may come from an opposition for disinvestment itself, not necessarily an opposition to understanding the legal framework for it.*
- *DCP Comment: Suggest combining #25 and #26 into one option entitled “Conduct a legal review of the adequacy of Delaware’s planning, financial and incentive tools for responding to sea level rise”. The review would include both existing mechanisms (like TDRs below) and could look into “novel” buyout approaches and other approaches that have not yet been utilized in Delaware, like long-term buyouts using reverse mortgages.*
- *DCP Comment #3. Consider for priority action, as a better understanding of the legal/administrative framework for land use decisions is a prerequisite for many other options.*

26. Consider use of a Transfer of Development Rights tool to direct future growth away from vulnerable areas. *There was general Support for this with 12 specifically in support and 4 not in support.*

- One commenter said “The development of innovative and flexible approaches for encouraging and incentivizing movement of property owners from vulnerable areas should be a priority. In addition to TDR’s, new forms of buyouts that might include longer term and novel arrangements should be explored”
- One commenter thought that TDRs would be difficult to implement
- *DCP Comment: Suggest incorporating into #25; would address both comments by expanding the scope and also identifying reasons why a TDR might be difficult to implement and perhaps suggesting better approaches.*

27. Develop a dike safety program. *There was mixed support with 7 specifically supporting and 4 not in support.*

- One commenter thought this was very important, but that the write-up lacked the sense of urgency that it should have.
- One commenter wanted it to mention that this would likely require legislative and/or executive action
- One commenter thought that it would just be more bureaucracy
- *DCP Comment: include the need for legislative/executive action in write-up. Would likely be a longer term item because of the need for legislative action.*

28. Designate shoreline zones for adaptation action. *There was mixed support for this, with 6 specifically supporting and 3 not in support.*

- One commenter questioned if urban shorelines would be included
- One commenter mentioned the strong link with the Bayshores Initiative
- *DCP Comment: the intent was to include shorelines throughout the state, including urban/industrial.*

29. Develop comprehensive wetlands restoration strategy in response to sea level rise. *There was support for this with 13 specifically in support and 3 not in support.*

- One commenter pointed out that this should be linked to Option 49, which calls for a study of wetland migration areas.
- One commenter believed that this should be a priority action
- There was specific support for ‘beneficial reuse of sediment’
- One commenter wanted to recognize the built communities which have a symbiotic relationship with the surrounding wetlands.
- **DCP Comment: There is a strong link to #49, which is likely a prerequisite action for this item to occur.**

30. **Continue efforts to re-evaluate management strategies for existing coastal impoundments.** *There was support for this option with 8 specifically in support and 3 not in support.*
- One commenter thought that this option might want to explore in detail the value of developing a “new” formal management collaboration (federal and state) for the National Wildlife Refuges that incorporate the interests of the diverse communities (including farmers) that adjoins them.
 - **DCP Comment:** *This option was initially specific to the impoundments that are managed by the state, but we can add mention of collaborating with USFWS in the text.*
31. **Evaluate the benefits and risks of permitting privately owned coastal impoundments.** *There was support for this with 8 specifically in support and 4 not in support.*
- One commenter said that impoundments endanger local communities
 - **DCP Comment:** *Add surrounding communities to list of items that must be evaluated in text of this option*
32. **Develop a framework for decision making regarding land protection and restoration strategies based on habitat vulnerability, migration potential and relative importance in the regional landscape, historical significance or other key factors** *There was mixed support for this with 7 specifically in support and 3 not in support.*
- One commenter wanted to recognize and integrate the reality of the extensive research process and management analysis that has already been done for the two federal refuges (the recently completed Comprehensive Conservation Plan).
 - **DCP Comment:** *Include this in text*

INCREASE PUBLIC AWARENESS OF SEA LEVEL RISE THROUGH EDUCATION, OUTREACH AND MARKETING

33. **Develop a comprehensive outreach strategy to educate public about sea level rise.** *There was support for this with 17 specifically in support and 1 not in support.*
- Two commenters thought this should be a priority action
 - There was a suggestion to include utilities, the real estate community, farmers and insurance community as targeted audiences
 - One suggested that we include the “non-impacted” communities whose tax dollars are being utilized to fix problems on the coast
 - There was a suggestion to specifically include school children beginning no later than jr. high using state science curriculum standards and to learn what other states have done for k-12 education and copy the best practices.
 - **DCP Comment:** *SLRAC has previously decided to not specifically recommend development of k-12 curriculum standards.*
 - **DCP Comment:** *Comments in other Options also indicated a desire for the technical data and information that would be generated by the options in the “data gaps” section to be publically available. The Outreach Strategy can also identify the best way to make this information publically available*
 - **DCP Comment:** *Suggested change to incorporate the audiences listed above to the text and include a way to make new technical info available.*

34. **Provide education and outreach for impacted communities and citizens.** *There was support for this with 8 specifically in support and 1 not in support.*
- Comment to be explicit that SLR affects some communities more than others.
 - Concern that insurance be part of the discussion for communities and citizens
 - Include dangers of living behind dikes and levees in educational efforts.
 - **DCP Comment: Comments in other Options also indicated a desire for the technical data and information that would be generated by the options in the “data gaps” section to be publically available.**
 - **DCP Comment #2: Incorporate comments into text and also include mention of making new data and research available.**
35. **Improve the ability of homebuyers to investigate a property’s potential vulnerability to sea level prior to purchase.** *There was mixed support for this option. Approximately 16 commenters supported this option; 6 did not support it.*
- One commenter wanted to wait until there is better data about what areas sea level rise will affect, and when (phase in after data collection options 44, 47, 65 and 55)
 - One comment also addressed education efforts for living behind dikes and levees and that there may be a need for vulnerability “disclosure for people and businesses behind dikes and levees with questionable maintenance regimes
 - Focus more on the education component, and less on the disclosure component. Spend more time describing the “Newark Model”
 - Include better information about cost and availability of flood insurance in education efforts
 - **DCP Recommendation: Focus this option on homebuyer education, to include making it easier for prospective homeowners to obtain info on SLR, Floodplain maps, flood preparedness and insurance info.**
 - **Question to Committee: Should disclosure be mentioned either in this Option or elsewhere in the document text as an idea that was brought up and given significant consideration? It could also be highlighted as a long-term option, only to be implemented when data is good enough to support it.**
36. **Provide targeted outreach to water and wastewater operators and water utilities.** *There was support for this with 5 specifically supporting and 1 not in support.*
- One commenter wanted to include adding state, municipal, and county water and wastewater professionals.
 - **DCP Comment: Revise text to include these stakeholders.**

IMPROVE THE AVAILABILITY AND ROBUSTNESS OF SEA LEVEL RISE DATA SETS:

37. **Conduct a risk assessment for Delaware’s system of dikes & levees.** *There was support for this with 8 specifically supporting and 1 not in support.*
- One commenter suggested that there may be a need for vulnerability “disclosure” for people and businesses behind dikes and levees with questionable maintenance regimes
 - **DCP Comment: incorporate new sentence that indicates the importance of maintained dikes for those living behind them**
 - **DCP Comment #2: link as a prerequisite for # 27, Develop a Dike Safety Program**

38. **Develop and maintain a comprehensive database that contains the location and condition of all wastewater infrastructure.** *There was support for this with 7 specifically in support and 2 not in support*
- One commenter believed that there might be too many legal issues with this for it to be viable
 - **DCP comment:** *unsure exactly why this would have legal issues as commenter did not specify. Perhaps making such a database publically accessible would have homeland security issues. Will specify that this is not necessarily a database for the public, rather for emergency managers etc.*
39. **Identify data needs to plan transportation investments.** *There was support for this with 6 specifically in support and 1 not in support.*
- No specific or actionable comments received
40. **Model potential stormwater inundation problems in highly vulnerable areas.** *There was support for this with 6 specifically in support and 1 not in support.*
- No specific or actionable comments received
41. **Develop a model that will predict changes to salinity in surface water that may occur under differing sea level rise scenarios.** *There was support for this option with 4 specifically supportive and 2 not supportive*
- No specific or actionable comments received.
42. **Develop a statewide groundwater model.** *There was support for this option with 6 specifically in support and 2 not in support.*
- One commenter suggested we mention agriculture as an important end user of this info.
 - **DCP Comment:** *We can incorporate this into the text.*
43. **Encourage the development of a research and policy center at a university or college campus that would focus on applied research for sea level rise and adaptation.** *There was support for this with 10 specifically in favor and 2 not supportive*
- Two commenters said this should be a priority/high importance
 - One commenter believed this option gets lost in a series of options about data – when it could be a stand alone recommendation of great importance.
 - Comment that this could also be a “consortium” of research and policy resources that connect Delaware’s academic institutions
 - Comment that this could be funded by a Coastal tax
 - **DCP Comment:** *Consider as priority action. Comment about this option getting lost will be addressed by identifying priority or short-term actions.*
44. **Improve monitoring of current sea level conditions and improve predictions for timing of inundation.** *There was support for this option with 9 specifically in support and 1 not in support.*
- One commenter wanted recent funding cuts (DCP note, this may reference federal budget cuts) to be mentioned.
 - One comment that this could be funded with coastal tax

- **DCP Comment:** *this may be a pre-requisite for implementation of other options.*

45. **Increase understanding of the regional implications of loss of industrial areas in coastal Delaware.** *There was support for this with 6 specifically supportive and 2 not supportive.*

- One commenter wanted the private sector to take more initiative

46. **Improve understanding of impacts to adjacent properties from adaptation actions.** *There was support for this with 5 specifically supportive and 1 not supportive.*

- One commenter thought that this is a good place to also raise the need for stormwater management requirements
- One commenter thought this was applicable also to *property owners* where “adaptive measures” might result in “water trespass” on neighboring properties.
- **DCP Comment:** *Text of option can be amended so that example given also includes residential or business properties, instead of an industrial example*

47. **Develop sea level models that incorporate storm surge impacts.** *There was support for this with 15 specifically supportive and 1 not supportive.*

- Many commenters (at least 6) thought this was of high importance or should be a priority
- Explain the reasons why this hasn’t already been done
- Several specific comments about Inland Bays flooding and the Indian River Inlet
- **DCP Comment:** *Main body of document will explain why models do not yet incorporate storm surge. Consider as a priority action.*

48. **Foster pilot projects that demonstrate the effectiveness of best management practices for management of agricultural lands affected by sea level rise.** *There was support for this with 6 specifically supportive and 2 not supportive.*

- One commenter pointed out that the Prime Hook area would be a good place to foster best management practices of agricultural land because the Farm Preservation Program is active there, salt water intrusion is increasing, and UD has been doing research at the College of Earth, Ocean and Environment on non-traditional crops better suited to such conditions.

49. **Identify and preserve areas for potential wetland migration.** *There was support for this with 13 specifically supportive and 1 not supportive*

- Link to Option 29 (develop comprehensive wetlands strategy)
- One commenter suggested prioritizing the purchase of farmland for this purpose
- Several commenters identified this as a priority item
- **DCP Comment:** *Will link to #29 in the text (development of wetlands restoration strategy). Consider as a priority action.*

50. **Encourage federal agencies to integrate sea level rise planning into their flood models.** *There was a support for this with 13 specifically supportive and 1 not in support.*

- There was concern from at least one commenter that data is not yet good enough to produce reliable flood maps that incorporate sea level rise. Data from options about monitoring sea level, incorporating sea level rise into flood maps, adding tide stations should be done first.

- There was a comment to also ensure that floodplain maps are routinely updated (DCP comment: they are only periodically updated now with many not having been comprehensively reviewed for several decades)
- Consider the social and economic impact of this action
- **DCP Comment: Amend to mention the passage of the Biggert-Waters Act which directed FEMA to begin looking at the feasibility of including SLR into flood maps.**

51. Conduct research to better understand human response to sea level rise and adaptation. *There was support for this option with 7 specifically supportive and 1 not in support.*

- One commenter thought this was very important/should be a priority. Believes that lack of consideration for the human dimensions of SLR have made job of outreach and education much more difficult.
- Could be linked to #43, development of a research center in Delaware

52. Improve the accuracy of Delaware's elevation benchmark network. *There was support for this option with 7 specifically supportive and 1 not in support*

- Question about whether the 10-Year Bay Beach Management Plan produced a good model for this
- **DCP note, the two are linked, with implementation of the option helping to make sure that all shoreline projects are constructed to the correct elevation**

53. Continue and expand studies regarding sediment accretion rates and susceptibility of wetlands to sea level rise. *There was support for this option with 7 specifically supportive and 1 not in support*

- No specific actionable comments received
- **DCP Comment: this is a prerequisite action for #29, Wetlands Restoration Plan**

54. Add additional tidal observation stations in Delaware. *There was a high level of support for this with 10 supportive and 1 not supportive*

- No specific actionable comments received
- **DCP Comment: This may be a prerequisite action for #47 development of better SLR and storm surge models.**

55. Install inland inundation water level monitoring sites. *There was support for this with 6 supportive comments and 1 not in support*

- One commenter said that improving monitoring of inland sites is necessary to show what even usually high tides can do
- One commenter indicated that this should be prioritized
- The more residents and property owners in the inland begin to understand that their interests are at risk just as the coast dwellers the more likely good policy and necessary resources will result.
- **DCP Comment: Numerous comments were rec'd throughout about increased extent of flooding in the Inland Bays region.**
- **DCP Comment #2: This is a prerequisite for developing inundation models for inundation from storms and sea level rise.**

PROVIDE TECHNICAL ASSISTANCE TO PARTNERS FOR ASSESSING VULNERABILITY AND CHOOSING ADAPTATION OPTIONS

56. **Create a coordinated effort to provide technical assistance to local governments.** *There was support for this with 12 providing supportive comments and 1 not in support.*

- At least 6 commenters believed this to be a high priority item
- One commenter wanted the text to be much stronger – indicating that there should be consequences for local governments who do not plan ahead (in the form of reduced assistance from the state/fed)
- Increased insurance regulation at the state was also cited as a need here
- **DCP Comment: Consider for priority action**
- **DCP Comment #2: include mention of insurance in text**

57. **Provide land managers, fisheries managers and farmers with the information and extension support necessary to manage lands and fisheries in areas affected by sea level rise.** *There was support for this with 9 providing supportive comments and 1 not in support.*

- One commenter thought this should be a priority action
- **DCP Comment: Recommend that Option #7 and #8, addressing assistance to the Open Space Council and Ag Preservation Program be merged into this option**

58. **Provide technical assistance for industrial and port facilities to incorporate sea level rise into investment plans and continuity of business plans** *There was support for this with 10 providing supportive comments and 1 not in support*

- There was a question as to who would be providing this technical assistance.
- Suggestion to use the US Navy's vigorous effort and developing technical experience in adapting its world-wide port assets to SLR.
- One commenter believed this should be prioritized
- **DCP Comment: The document will lay out a path for answering questions like "who should do this" in the implementation phase.**

59. **Develop best management practice manuals for adaptation in Delaware.** *There was support for this with 10 providing supportive comments and 1 not in support.*

- Manuals could be developed in collaboration with faculty at colleges and universities
- This helps with public education and outreach in a concrete way.
- One commenter believed this should be prioritized

60. **Conduct a cost benefit analysis for adaptation.** *There was support for this option with 10 commenters supportive and 3 not supportive.*

- One commenter said that this can't be done until specific actions are proposed
- Add Cost/Benefit study conducted for Bay Beaches as basis
- One commenter thought this should be prioritized
- One commenter thought this would be helpful in deciding among adaptation options.
- **DCP comment: Since this is a very general option, and envisioned as general guidance rather than for a specific project, combine with 61 below (database of costs)**

61. Develop a database of costs of adaptation options for use by decision-makers and the public. *There was support for this with 9 comments in support and 2 not in support*

- One commenter thought that the database should include past adaptation experiences – including dates, description of the work done and its total costs, and costs per unit (e.g. cubic yards of added beach, feet or meters of dike or road repaired, feet of elevation added to structures), as well as the name and contact information of the contractor who did the work – as well as projections of likely future costs.
- One commenter thought that the database of costs should be connected with a technical piece on the efficacy of the actual adaptation options to be considered.
- One commenter thought this should be prioritized
- ***DCP Comments: Combine #60 into #61 and provide information on known cost-benefit studies that have been conducted in the region.***